

**A new lizard of the genus *Sphenomorphus* (Reptilia: Scincidae)
from Mt. Kitanglad, Mindanao, Philippine Islands**

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Abstract.—A new lizard, *Sphenomorphus kitangladensis*, is described from Mindanao, Philippine Islands. It is in Group 3, the *Sphenomorphus laterimaculatus* Group. It differs from other species of this group in the separation of the anterior loreal from the labials and, except for *Sphenomorphus acutus*, the smaller eye relative to snout-length. In color pattern and general appearance, this species is most similar to *Sphenomorphus leucospilos* and *S. laterimaculatus* from Luzon Island; but differs from the former in the greater number of scale rows between parietals and base of the tail, and from the latter in the lower number of midbody rows.

Brown & Alcalá (1980) recognized six species Groups (assemblages) of the scincid genus *Sphenomorphus* in the Philippines. Group 1 included two Philippine species characterized by very high counts for dorsal scale rows. Group 2 included six species characterized by small size and low lamellar and midbody scale-counts. Group 3 included four species characterized as relatively slender, intermediate in size (rarely exceeding 60 mm in snout-vent length), with 30–36 (rarely 38–40) midbody scale rows and four supraoculars. *Sphenomorphus acutus*, a fifth species tentatively included in this group at the time, has six supraoculars and 26–30 midbody scale rows. Group 4 included five species characterized by a shorter, blunter snout, relatively longer limbs, usually five or six supraoculars, and usually 36–50 plus midbody scale rows. Group 5 included four species characterized by their relatively large size (usually greater than 55 mm snout-vent length) and a more slender, tapered snout than group 4. Group 6 included one species (*S. fasciatus*) characterized by the very distinctive, banded color pattern, and the high number of dorsal scale rows (78–90).

A recent sample from the mountain area

northeast of Lake Lanao in north-central Mindanao Island differs in several characters from all previously described species of *Sphenomorphus*. This sample represents a taxon which belongs in Group-3 as defined above.

Materials and Methods

Material examined included all species of Group 3: *leucospilos* (2), *laterimaculatus* (1), *victoria* (2), *acutus* (16), *mindanensis* (20 plus), and *kitangladensis* (4).

Measurements on preserved specimens were determined to the nearest 0.1 mm, using a Helios dial caliper. Head length (HL) was measured from posterior edge of ear opening to tip of snout; head breadth (HB) at the widest point near the angle of the jaws; snout length (SnL) from anterior edge of eye socket to tip of snout; eye diameter (ED) from anterior to posterior edge of socket; tympanum diameter (TD) from anterior to posterior edge; snout-vent length (SVL) from tip of snout to posterior edge of preanals; axilla-groin distance (Ax-Gr) from base of fore limb to base of hind limb; hind limb length from base of hind limb to tip of longest toe.

Scale counts were standardized as follows: lamellae beneath the digits were counted down to the base or to the point where subdigital scales became less than two times the breadth of the solar scales; (2) midbody scale rows (MBSR) were counted at a point midway between fore and hind limbs, and (3) dorsal scale rows (DSR) were counted between the parietals and the row on the base of the tail at the level opposite the vent. Standard nomenclature for the headshields of the Scincidae is followed (Boulenger 1890, Smith 1935, and Brown & Alcalá 1980).

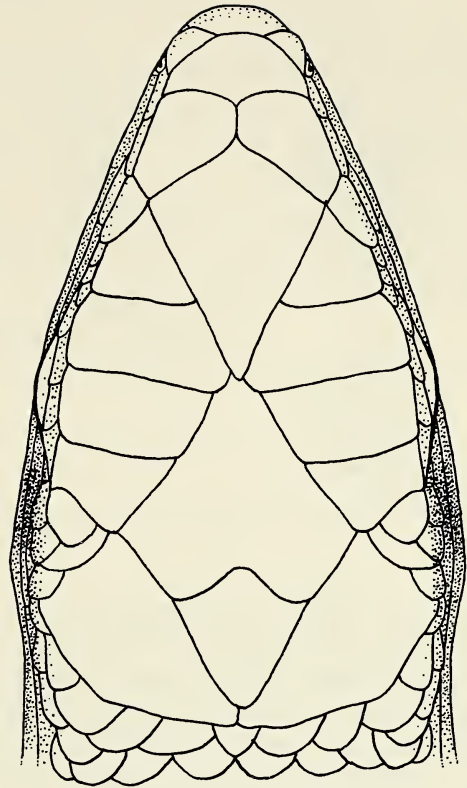
Sphenomorphus kitangladensis,
new species
Fig. 1

Holotype.—FMNH 250644, an adult male collected 9 May 1992 on Mt. Kitanglad, Bukidnon Province, north-central Mindanao Island by L. R. Heaney. MBSR 38; DSR 76; fourth toe lamellae 15; SVL 56.4 mm; HL 12.5 mm; HB 8.0 mm; SnL 3.7 mm; ED 2.6 mm; Ax-Gr 31.5 mm.

Paratypes (3).—FMNH 250641, 250643, CAS 191084 (same locality as the holotype).

Diagnosis.—This species is differentiated from other species of *Sphenomorphus* by the following combination of characters: (1) MBSR 34–38; (2) DSR 73–76; (3) fourth toe lamellae 15–17; (4) anterior loreal small, triangular, not in contact with upper labials; (5) prefrontals in moderate to broad contact; (6) frontoparietals fused; (7) interparietal large; (8) SVL at maturity about 50–60 mm.

Description (based on four specimens).—SVL at maturity 55.8–56.4 mm for two males and 51.9 mm for one female; snout tapered, bluntly rounded, SnL 28–30% of HL and 43–50% of HB; HB 13–14% of SVL; ED 59–70% of SnL and 30–33% of HB; rostral broader than high, in broad contact with frontonasal; prefrontals in moderate to broad contact; frontal long, in contact with two or three supraoculars; four large supra-



2.5mm

Fig. 1. *Sphenomorphus kitangladensis*. Dorsal headshield pattern, CAS 191084, paratype.

oculars; frontoparietals fused; interparietal large; parietals in narrow contact posteriorly; no nuchals (Fig. 1); anterior loreal small, triangular, not in contact with upper labials; posterior loreal large, in contact with first and second or second upper labials (posterior loreal forming two superimposed scales in one specimen); seven upper labials, fifth enlarged and beneath eye; six or seven lower labials; tympanum shallow, TD 42–57% of ED; dorsal scales smooth, 73–76 transverse rows along vertebral line between parietals and base of tail; 34–38 midbody scale rows; two enlarged preanals; limbs well developed; length of extended

Table 1.—Standard scale counts and other pertinent characters for Philippine species referred to Group 3 of the genus *Sphenomorphus*.

Part A						
Species	Adult SVL (mm)	Midbody scale rows	Dorsal scale rows	Fourth toe lamellae		
<i>S. mindanensis</i>	42–56	30–32	66–78	17–20		
<i>S. laterimaculatus</i>	52±	40	72	18		
<i>S. leucospilos</i>	52–55	32	63–68	16–18		
<i>S. kitangladensis</i>	50–57	34–38	73–76	15–17		
<i>S. victoria</i>	45	30	64–65	18–20		

Part B						
Species	Fronto-parietals		Anterior loreal contacts labials		Prefrontals in contact	
	Fused	Not fused	Yes	No	Yes	No
<i>S. mindanensis</i>		X	X			X
<i>S. laterimaculatus</i>	X		X		X	
<i>S. leucospilos</i>	X		X		X	
<i>S. kitangladensis</i>	X			X	X	
<i>S. victoria</i>		X	X			X

hind limb 77–82% Ax-Gr distance (probably conservative since limbs were stiff); 15–17 lamellae beneath fourth toe; 6–7 lamellae beneath first toe; tail much longer than body.

Color (in preservative).—Dorsum grayish tan, variously marked with small blackish spots, especially along vertebral line; dorso-lateral area marked by a narrow, wavy, blackish band with some vague to prominent, pale blotches along dorsal margin; lips usually with some dark bars; lateral surfaces of body dusky; venter grayish ivory, relatively uniform for one specimen, mottled with black anterior to fore limbs for three specimens.

Etymology.—Based on the name of the mountain which is the type locality.

Range.—Known only from the type locality, Mt. Kitanglad, Bukidnan Province, Mindanao Island.

Comparisons

Comparisons are made with the four species that might be easily confused with *Sphenomorphus kitangladensis*. *Sphenomorphus kitangladensis* is most similar to *S. laterimaculatus*, but differs in the some-

what lower number of midbody scale rows (34–38), 40 for *laterimaculatus*; the small anterior loreal which is not in contact with the upper labials (Table 1); and the shorter snout relative to the head breadth. *Sphenomorphus leucospilos* and *S. victoria* exhibit lower counts for both midbody and dorsal scale rows and have the anterior loreal in contact with the upper labials (Table 1). *Sphenomorphus mindanensis* and *S. victoria* differ in the smaller prefrontals which are not in contact with each other and the fronto-parietals are not fused. *Sphenomorphus mindanensis* further differs from this species in the lower number of midbody scale rows (Table 1).

Some examples of *Sphenomorphus decipiens* (a Group 4 species) resemble *S. kitangladensis* in exhibiting a small anterior loreal which is not in contact from the upper labials. However, *S. decipiens* differs in the blunter, shorter snout, evidenced in the SnL/ HB ratio (35–39% for *decipiens* and 43–50% for *kitangladensis*) and the HB/HL ratio (65–81% for *decipiens* and 58–64% for *kitangladensis*); the smaller size (SVL 31–45 mm for 20 adult *decipiens* and 52–56 mm for 3 adult *kitangladensis*); and the lower number

of dorsal scale rows (57–66 for *decipiens* and 73–76 for *kitangladensis*).

Acknowledgments

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